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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,130	02/22/2002	David Ernest Johnston	01-002	8493

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INTELLECTUAL PROPERTY DEPT.
47690 EAST ANCHOR COURT
PLYMOUTH, MI 48170-2455

EXAMINER

PATEL, VISHAL A

ART UNIT PAPER NUMBER

3676

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/081,130

Applicant(s)

JOHNSTON, DAVID ERNEST

Examiner

Vishal Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Preston et al (US. 4,986,553).

Regarding claim 1: Preston discloses a shaft seal assembly comprising a case (1) having a radial portion (2), an elastomeric seal body (seal body of ring 5) molded to the case, an elastomeric lip portion (7) extending from the seal body, a first end of the elastomeric lip portion originating adjacent a hinge portion (hinge above the lip portion 7 and near an inner surface of the radial portion), a polymeric liner (4) bonded along its full length to the elastomeric lip portion, the first end of the lip portion and a portion of the liner extending over at least a portion of the radial portion of the case (both the elastomeric lip and the polymeric liner extend over at least a portion of the radial portion 2), the entire polymeric liner being movable with the elastomeric lip portion about the hinge portion toward and away from the case and the polymeric liner is free from any radial contact with the case (the polymeric liner does not contact the radial portion of the case).

Regarding claim 2: The case includes the radial portion having a length, the elastomeric seal body includes a radial portion having a length less than the length of the radial portion of the case (the seal body has a radial portion that extends between the radial portion 2 and the

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polymeric liner 4, the length of the radial portion of the seal body is less than the radial length of the radial portion of the case). The elastomeric lip portion extends over at least a portion of the length of the radial portion of the case (the elastomeric lip portion extends over at least a portion of the length of the radial portion of the case).

Regarding claim 3: The elastomeric lip portion is integrally formed with the elastomeric seal body and extends over the length of the radial portion of the case of which the radial portion of the elastomeric seal body does not extend (this is the case as seen in figure 1).

Regarding claim 4: The polymeric liner is bonded to the lip portion.

Regarding claim 5: The polymeric liner portion includes hydrodynamic grooves (grooves 8).

Regarding claim 6: The elastomeric seal body does not cover the entire radial portion of the case. The elastomeric lip portion (portion of the lip that covers inner surface of 2) extending from the hinge portion of the elastomeric seal body and covering the radial portion of the case not covered by the elastomeric seal body.

Regarding claim 7: The hinge portion forms a flexible hinge (the hinge portion where 4 and 7 flex from).

Regarding claim 8: The polymeric liner is made from polytetrafluoroethylene.

Regarding claim 9: The polymeric liner includes a contact surface (distal end of the polymeric liner that is capable of contact a surface).

Regarding claim 10: The contact surface includes at least one hydrodynamic groove (last groove 8 on 4).

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Regarding claim 11: The hinge portion extending from the seal body adjacent to a terminating section (terminating section of 2) of the radial portion of the case.

Regarding claim 12: The seal body, the hinge portion and the lip are integrally formed together.

Regarding claim 13: The seal body, the hinge portion and the lip are formed from an elastomeric material.

Regarding claim 14: The liner is made of polytetrafluoroethylene.

Regarding claim 15: The liner includes at least one groove (last groove 8 on 4).

Regarding claim 16: The radial portion of the case has a length that is greater than a radial length of the seal body.

Regarding claim 17: The hinge portion extends over the radial portion of the case that is not covered by the seal body.

Regarding claim 18: The liner is bonded to the lip.

Regarding claim 19: The hinge portion receives more bending stresses than the liner (this is the case since the hinge portion of the elastomeric body is bent further than the liner).

Regarding claim 20: The lip receives more bending stress than the liner (this is the case since the lip portion is bent further than the liner).

3. Claims 1-20 rejected under 35 U.S.C. 102(b) as being anticipated by Riesing (US. 2,804,325).

Regarding claim 1: Riesing discloses a shaft seal assembly comprising a case (40) having a radial portion (portion projecting radially and having 32), an elastomeric seal body (seal body of ring 34, 30 and 32) molded to the case, an elastomeric lip portion (lip portion formed of 34

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and 30) extending from the seal body, a first end of the elastomeric lip portion originating adjacent a hinge portion (hinge portion between 32 and 30 that is on case 40), a polymeric liner (48) bonded along its full length to the elastomeric lip portion, the first end of the lip portion and a portion of the liner extending over at least a portion of the radial portion of the case (both the elastomeric lip and the polymeric liner extend over at least a portion of the radial portion 34), the entire polymeric liner being movable with the elastomeric lip portion about the hinge portion toward and away from the case and the polymeric liner is free from any radial contact with the case (the polymeric liner does not contact the radial portion of the case).

Regarding claim 2: The case includes the radial portion having a length, the elastomeric seal body includes a radial portion having a length less than the length of the radial portion of the case (the seal body has a radial portion that extends between the radial portion of the case 40 and the polymeric liner 48, the length of the radial portion of the seal body is less than the radial length of the radial portion of the case). The elastomeric lip portion extends over at least a portion of the length of the radial portion of the case (the elastomeric lip portion extends over at least a portion of the length of the radial portion of the case).

Regarding claim 3: The elastomeric lip portion is integrally formed with the elastomeric seal body and extends over the length of the radial portion of the case of which the radial portion of the elastomeric seal body does not extend (this is the case as seen in figure 2).

Regarding claim 4: The polymeric liner is bonded to the lip portion.

Regarding claim 5: The polymeric liner portion includes hydrodynamic grooves (grooves 54).

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Regarding claim 6: The elastomeric seal body does not cover the entire radial portion of the case. The elastomeric lip portion (portion of the lip that covers inner surface of the radial portion) extending from the hinge portion of the elastomeric seal body and covering the radial portion of the case not covered by the elastomeric seal body.

Regarding claim 7: The hinge portion forms a flexible hinge (the hinge portion between 30 and 32 that flexes).

Regarding claim 8: The polymeric liner is made from polytetrafluoroethylene.

Regarding claim 9: The polymeric liner includes a contact surface (distal end of the polymeric liner that is capable of contact a surface).

Regarding claim 10: The contact surface includes at least one hydrodynamic groove (last groove 54).

Regarding claim 11: The hinge portion extending from the seal body adjacent to a terminating section (terminating section being the end of the radial portion) of the radial portion of the case.

Regarding claim 12: The seal body, the hinge portion and the lip are integrally formed together.

Regarding claim 13: The seal body, the hinge portion and the lip are formed from an elastomeric material.

Regarding claim 14: The liner is made of polytetrafluoroethylene.

Regarding claim 15: The liner includes at least one groove (54).

Regarding claim 16: The radial portion of the case has a length that is greater than a radial length of the seal body.

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Regarding claim 17: The hinge portion extends over the radial portion of the case that is not covered by the seal body.

Regarding claim 18: The liner is bonded to the lip.

Regarding claim 19: The hinge portion receives more bending stresses than the liner (this is the case since the hinge portion of the elastomeric body is bent further than the liner).

Regarding claim 20: The lip receives more bending stress than the liner (this is the case since the lip portion is bent further than the liner).

Response to Arguments

4. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Jackowski both also disclose what is claimed by the applicant.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann, can be reached on (703) 306-4115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.


Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: 703-872-9326, for formal communications for entry before Final action: or,
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive, Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP
November 29, 2004


ALISON PICKARD
Primary Patent Examiner
Tech. Center 3600